

## CLAIMS

### WHAT IS CLAIMED IS

1. A radio frequency excited laser comprising:

5           a gas medium entering in a gas inlet and passing longitudinally through a  
supersonic metal nozzle within a laser body and an optical resonator within said nozzle  
downstream of said gas inlet;

          at least one RF electrode on a first side of said laser body outside said nozzle, an  
opposing side of said laser body electrically connected to a grounding source, and a  
10       dielectric plate insulating an RF electrode, said body dielectrically insulated from said  
gas medium, said RF electrode exciting said gas active medium by intensive ionization of  
said gas between said RF electrode and said opposing side of said laser body.